

NFPA Fact Sheets

Smoke alarms/ detectors

Smoke alarms/ detectors, when properly installed, give an early audible warning needed to safely escape from fire. [Installing and maintaining these are critical to your safety. Therefore, it is unwise to cover or disconnect these.]

Facts & Figures

- 85% of all fire deaths occur in the home, and the majority of these occur at night when most people are sleeping.
- 65% of home fire deaths from 2000-2004 occurred in homes with no smoke alarms/ detectors (or these were not functioning).
- Homes with smoke alarms/ detectors typically have a death rate that is 51% less than the rate for homes without smoke alarms.
- Half of the deaths from fires in homes equipped with smoke alarms/ detectors resulted from fires in which the smoke alarm did not sound--usually when batteries were dead, disconnected or missing.
- In one out of every five homes equipped with smoke alarms/ detectors, the devices did not work.

Why do smoke alarms/ detectors fail?

- Most often because of missing, dead or disconnected batteries.
- According to NFPA, aging smoke alarms/ detectors don't operate as efficiently and often are the source for nuisance alarms. Older smoke alarms/ detectors are estimated to have a 30% probability of failure within the first 10 years.
- Newer smoke alarms/ detectors do better, but should be **replaced after 10 years**.
- Replace smoke alarms/ detectors when moving into a new residence.
(recommended by NFPA)

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Tips for keeping Smoke alarms/ detectors working properly

- Test smoke alarms/ detectors at least once a month by using the alarm's "test button". Do not use an open flame.
- Clean the units by vacuuming or dusting in accordance with the manufacturer's instructions.
- Install new batteries in all smoke alarms/ detectors at least once a year on the day you change your clocks in the Fall or when the alarm chirps (warning that the battery is dying).
- Keep batteries in smoke alarms/ detectors; do not borrow them for other purposes. Nuisance activations can be addressed by moving a smoke alarm/ detector farther away from kitchen smoke or bathroom steam and by more frequent cleaning. If the problem persists, replace the unit.
- Don't paint smoke alarm/ detectors.

Tips for installing Smoke alarms/ detectors:

- While smoke alarms/ detectors alert people to fires, families still need to develop and practice home fire escape plans so that they can get out quickly.
- Install at least one smoke alarm on every floor of your home (including the basement) and in or near each sleeping area. If you sleep with the door closed, NFPA recommends installing smoke alarms/ detectors inside the room. In new homes, smoke alarms/ detectors are required in all sleeping rooms, per the National Fire Alarm Code.
- Because smoke rises, alarms should be mounted high on walls or ceilings.
- Wall-mounted alarms should be positioned 4-12 inches from the ceiling.
- Ceiling-mounted alarms should be positioned 4 inches away from the nearest wall.
- On vaulted ceilings, be sure to mount the alarm at the highest point of the ceiling.
- Smoke alarms/ detectors should not be installed near a window, door or forced-air register where drafts could interfere with their operation.
- NFPA recommends that people with hearing impairments install smoke alarms/ detectors with louder alarm signals and/or strobe lights to alert them to a fire. For a list of manufacturers that distribute smoke alarms/ detectors for the hearing impaired, please call NFPA's Center for High-Risk Outreach at 617-984-7826.
- Purchase smoke alarms/ detectors with the UL label.
- Smoke alarms/ detectors that are hard-wired to the home's electrical system should be installed by a qualified electrician.